

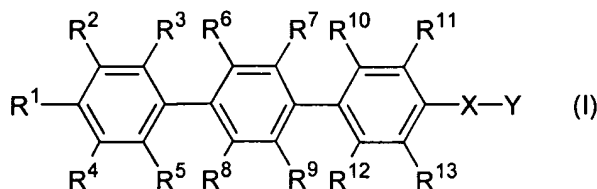
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1-33. (Canceled)

34. (Currently Amended) A compound of the formula (I):



wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹² and R¹³ are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, cyano, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is -O-, -CH₂-, -NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)_p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is -CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-,

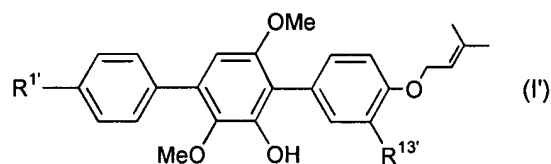
R¹ and R⁴, R¹ and R², R² and R³, R⁴ and R⁵, R⁶ and R⁷, R⁸ and R⁹, R¹⁰ and R¹¹, R¹² and R¹³, R¹¹ and -X-Y, or R¹³ and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R¹⁵ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted arylsulfonyl and which may optionally be substituted,

excluding compounds wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen, compounds wherein all of R⁶, R⁷, R⁸ and R⁹ are halogen and compounds wherein all of R²-R¹³ are each independently selected from the group consisting of hydrogen, halogen and cyano,

provided that R¹ is not hydrogen, fluorine, optionally substituted lower alkyl or optionally substituted lower alkoxy, all of R², R³, R⁴, R⁵ and R¹² are hydrogen, or R¹³ is not hydrogen or halogen when R⁶, R⁷, R⁸ and R⁹ are all simultaneously hydrogen,

and further provided that R¹ is not methyl or acetyloxy, R¹³ is not hydrogen, optionally substituted lower alkoxy carbonyl or optionally substituted carbamoyl, or -X-Y is not methoxy when at least one of R⁶, R⁷, R⁸ and R⁹ is a substituent other than hydrogen,

and excluding a compound of the formula (I'):



wherein R^{1'} is hydrogen or hydroxy and R^{13'} is hydroxy or methoxy;

or a pharmaceutically acceptable salt ~~or hydrate~~ thereof.

35. (Currently Amended) The compound claimed in claim 34, wherein R¹ is hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, lower alkylsulfonyl, formyl, optionally substituted amino, lower alkylsulfinyl, acyloxy, nitro, cyano, optionally substituted sulfamoyl or heterocyclyl,

R² is hydrogen, hydroxy, halogen, optionally substituted lower alkyl or optionally substituted lower alkylsulfonyloxy,

R³ is hydrogen, hydroxy, halogen or optionally substituted lower alkoxy,

R⁴ is hydrogen, optionally substituted lower alkyl, halogen, optionally substituted lower alkoxy, nitro or optionally substituted amino,

R⁵ is hydrogen, optionally substituted lower alkoxy, lower alkoxycarbonyl or carboxy,

R⁶ is hydrogen, halogen, optionally substituted lower alkyl, carboxy, lower alkoxycarbonyl, nitro, formyl, amino or lower alkylsulfonyloxy,

R⁷ and R⁸ are each independently hydrogen, halogen, optionally substituted lower alkyl, optionally substituted lower alkoxy, formyl or optionally substituted amino,

R⁹ is hydrogen, hydroxy, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, optionally substituted carbamoyl or optionally substituted amino,

R¹⁰ is hydrogen or lower alkoxy,

R¹¹ is hydrogen, halogen, optionally substituted lower alkyl, carboxy, lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, nitro or amino,

R¹² is hydrogen,

R¹³ is hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyloxy, optionally substituted acyloxy, optionally substituted lower alkylsulfonyloxy, formyl, nitro or optionally substituted amino,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl or optionally substituted cycloalkenyl and

Y may be optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-,

and R¹ and R², R¹ and R⁴, R⁸ and R⁹, R¹¹ and -X-Y, or R¹ and -X-Y taken together may form a 5- or 6-membered ring which contains one or more of O or NR¹⁵ wherein R¹⁵ is the same as defined in claim 34 and which may optionally be substituted;

or a pharmaceutically acceptable salt ~~or hydrate~~ thereof.

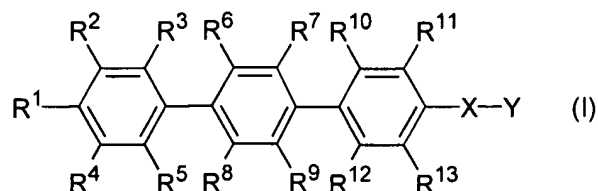
36. (Canceled)

37. (Currently Amended) A pharmaceutical composition comprising:

~~a compound,~~ compound or a pharmaceutically acceptable salt, ~~or hydrate~~ thereof, and

a pharmaceutically acceptable excipient,

wherein the compound is of the formula (I):



wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} and R^{13} are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, cyano, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is -O-, -CH₂-, -NR¹⁴- wherein R^{14} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)_p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is -CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-,

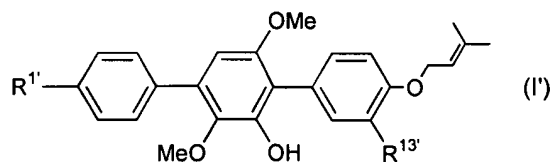
R^1 and R^4 , R^1 and R^2 , R^2 and R^3 , R^4 and R^5 , R^6 and R^7 , R^8 and R^9 , R^{10} and R^{11} , R^{12} and R^{13} , R^{11} and -X-Y, or R^{13} and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR^{15} wherein R^{15} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted arylsulfonyl and which may optionally be substituted,

excluding compounds wherein one or more of R^6 , R^7 , R^8 and R^9 are halogen and the others are hydrogen, compounds wherein all of R^6 , R^7 , R^8 and R^9 are halogen and compounds wherein all of R^2 - R^{13} are hydrogen, halogen or cyano,

provided that R^1 is not hydrogen, fluorine, optionally substituted lower alkyl or optionally substituted lower alkoxy, all of R^2 , R^3 , R^4 , R^5 and R^{12} are hydrogen, or R^{13} is not hydrogen or halogen when R^6 , R^7 , R^8 and R^9 are all simultaneously hydrogen,

and further provided that R^1 is not methyl or acetyloxy, R^{13} is not hydrogen, optionally substituted lower alkoxy or optionally substituted carbamoyl, or -X-Y is not methoxy when at least one of R^6 , R^7 , R^8 and R^9 is a substituent other than hydrogen,

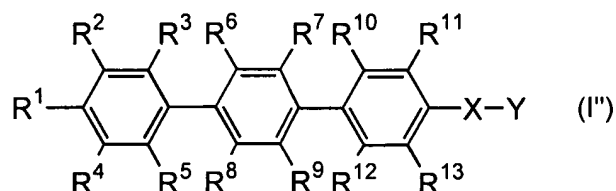
and excluding a compound of the formula (I'):



wherein $R^{1'}$ is hydrogen or hydroxy and $R^{13'}$ is hydroxy or methoxy.

38-39. (Canceled)

40. (Currently Amended) An immunosuppressive composition comprising a compound of the formula (I''):



wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} and R^{13} are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl optionally substituted, lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, cyano, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

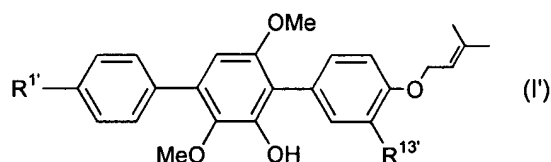
X is -O-, -CH₂-, -NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)_p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted

heterocyclyl, and Y may optionally be substituted lower alkoxy when X is -CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-,

R¹ and R⁴, R¹ and R², R² and R³, R⁴ and R⁵, R⁶ and R⁷, R⁸ and R⁹, R¹⁰ and R¹¹, R¹² and R¹³, R¹¹ and -X-Y, or R¹³ and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R¹⁵ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or optionally substituted arylsulfonyl and which may optionally be substituted,

excluding a compound of the formula (I'):

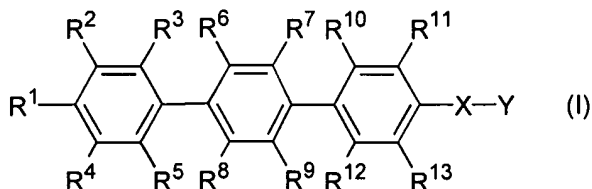


wherein R^{1'} is hydrogen or hydroxy and R^{13'} is hydroxy or methoxy; or a pharmaceutically acceptable salt ~~or hydrate~~ thereof, and

a pharmaceutically acceptable excipient.

41. (Canceled)

42. (Currently Amended) A process for producing a compound of the formula ~~(I)~~; (I) or a pharmaceutically acceptable salt ~~or hydrate~~ thereof:



wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} and R^{13} are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, cyano, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is -O-, -CH₂-, -NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)_p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is -CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-,

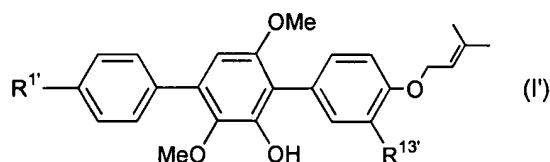
R¹ and R⁴, R¹ and R², R² and R³, R⁴ and R⁵, R⁶ and R⁷, R⁸ and R⁹, R¹⁰ and R¹¹, R¹² and R¹³, R¹¹ and -X-Y, or R¹³ and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R¹⁵ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted arylsulfonyl and which may optionally be substituted,

excluding compounds wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen, compounds wherein all of R⁶, R⁷, R⁸ and R⁹ are halogen and compounds wherein all of R²-R¹³ are hydrogen, halogen or cyano,

provided that R¹ is not hydrogen, fluorine, optionally substituted lower alkyl or optionally substituted lower alkoxy, all of R², R³, R⁴, R⁵ and R¹² are hydrogen, or R¹³ is not hydrogen or halogen when R⁶, R⁷, R⁸ and R⁹ are all simultaneously hydrogen,

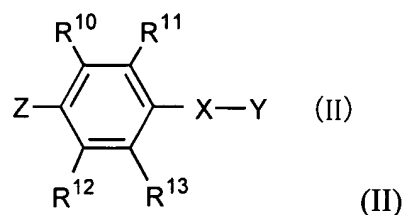
and further provided that R¹ is not methyl or acetyloxy, R¹³ is not hydrogen, optionally substituted lower alkoxy, optionally substituted carbamoyl, or -X-Y is not methoxy when at least one of R⁶, R⁷, R⁸ and R⁹ is a substituent other than hydrogen,

and excluding a compound of the formula (I):

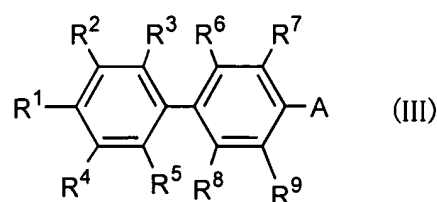


wherein R^{1'} is hydrogen or hydroxy and R^{13'} is hydroxy or methoxy;

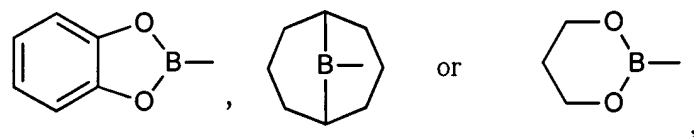
said process comprising reacting a compound of the formula (II):



with a compound of the formula (III):

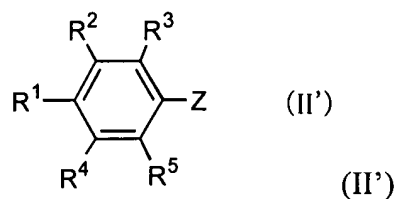


wherein, in the formulas (II) and (III), R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} and R^{13} are each described above; either of A and Z is dihydroxyborane, di(lower)alkoxyborane, di(lower)alkylborane,

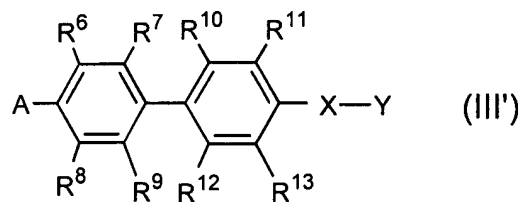


and the other is halogen or $-\text{OSO}_2(\text{C}_q\text{F}_{2q+1})-$ wherein q is an integer of 1 to 4,

or reacting a compound of the formula (II'):

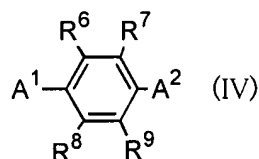


with a compound of the formula (III'):

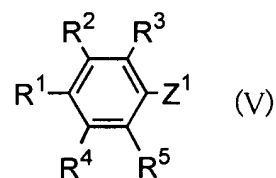


wherein, in the formulas (II') and (III'), $R^1 - R^{13}$, X and Y are the same as defined above and A and Z are the same as defined in the above formulas (II) and (III).

43. (Currently Amended) The process for producing the compound of the formula (I) according to claim 42, 42 or the pharmaceutically acceptable salt ~~or hydrate~~ thereof, comprising the reaction of a compound of the formula (IV):

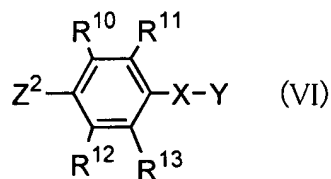


with a compound of the formula (V):



wherein, in the formulas (IV) and (V), $R^1, R^2, R^3, R^4, R^5, R^6, R^7, R^8$ and R^9 are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl,

optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, cyano, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl, Z^1 is defined the same as for Z in the formula (II), A^1 and A^2 are each independently defined the same as for A in the formula (III), and the reactivity of A^1 is higher than or equal to that of A^2 , followed by the reaction with a compound of the formula (VI):

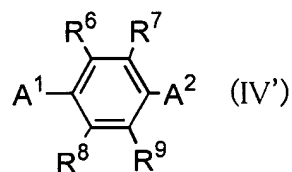


wherein R^{10} - R^{13} , are as defined for R^6 - R^9 above, X is -O-, $-CH_2-$, $NR^{14}-$ wherein R^{14} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or $-S(O)_p-$ wherein p is an integer of 0 to 2, Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is $-CH_2-$ and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or $-NR^{14}$, R^1 and R^4 , R^1 and R^2 , R^2 and R^3 , R^4 and R^5 , R^6 and R^7 , R^8 and R^9 , R^{10} and R^{11} , R^{12} and R^{13} , R^{11} and $-X-Y$, or R^{13} and $-X-Y$ taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR^{15} wherein R^{15} is hydrogen, optionally substituted lower alkyl, optionally substituted

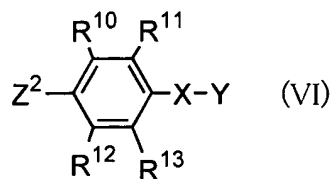
lower alkenyl, optionally substituted arylsulfonyl, and which may optionally be substituted, and Z^2 is the same as Z^1 defined in the above formula (II).

44. (Currently Amended) The process for producing the compound of the formula (I) according to claim 42, 42 or the pharmaceutically acceptable salt ~~or hydrate~~ thereof, said process comprising:

the reaction of a compound of the formula (IV'):

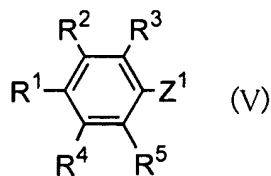


wherein, R^6 , R^7 , R^8 and R^9 are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, cyano, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl, A^1 and A^2 are each independently defined the same as A in the formula (III), and the reactivity of A^2 is higher than or equal to that of A^1 , with a compound of the formula (VI),



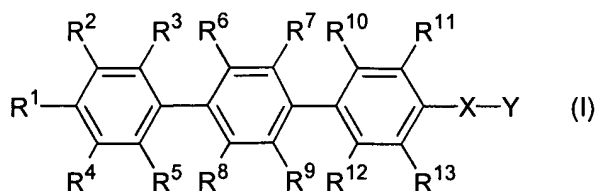
wherein R¹⁰-R¹³, are as defined for R⁶-R⁹ above, X is -O-, -CH₂-, NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)_p- wherein p is an integer of 0 to 2, Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is -CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴, R¹ and R⁴, R¹ and R², R² and R³, R⁴ and R⁵, R⁶ and R⁷, R⁸ and R⁹, R¹⁰ and R¹¹, R¹² and R¹³, R¹¹ and -X-Y, or R¹³ and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R¹⁵ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted arylsulfonyl, and which may optionally be substituted, and Z² is defined the same as Z in formula (II),

followed by the reaction with a compound of the formula (V)



wherein R^1 - R^5 are as defined for R^6 - R^9 above, Z^1 is defined the same as for Z in the formula (II).

45. (Currently Amended) A compound of the formula (I):



wherein R^1 is hydrogen, halogen, optionally substituted lower alkenyloxy, optionally substituted lower alkylsulfonyloxy, optionally substituted amino or optionally substituted sulfamoyl,

R^2 is hydrogen, halogen or lower alkyl having 1 to 3 carbon atoms,

R^3 is hydrogen or halogen,

R^4 is hydrogen, lower alkyl, lower alkoxy or halogen,

R^5 is hydrogen, lower alkoxycarbonyl or carboxy,

R^6 is hydrogen, lower alkyl or halogen,

R^7 is hydrogen, lower alkyl or lower alkoxy,

R^8 is hydrogen, lower alkyl or lower alkoxy,

R^9 is hydrogen, hydroxy, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, optionally substituted carbamoyl or optionally substituted amino,

R¹⁰ is hydrogen,

R¹¹ is hydrogen or halogen,

R¹² is hydrogen,

R¹³ is hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted acyloxy, optionally substituted lower alkylsulfonyloxy, formyl or optionally substituted amino,

X is -O-, -NH-, -NMe- or -SO₂-,

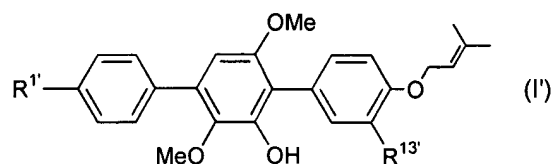
Y is lower alkyl optionally substituted with lower alkoxycarbonyl, aryl, lower alkylaryl, halogenoaryl, lower alkoxyaryl, heterocyclyl or acyl; or lower alkenyl optionally substituted with hydroxy, halogen or aryl,

and R¹ and R⁴ or R⁸ and R⁹ taken together may form a 5- or 6-membered ring which contains one or more of O,

excluding compounds wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen and compounds wherein all of R²-R¹³ are hydrogen,

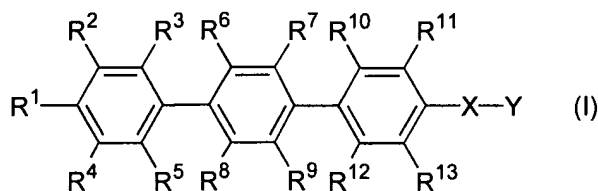
provided that R¹ is not hydrogen or fluorine, all of R², R³, R⁴, R⁵ and R¹² are hydrogen, or R¹³ is not hydrogen or halogen when R⁶, R⁷, R⁸ and R⁹ are simultaneously hydrogen,

and further provided that R¹³ is not hydrogen or -X-Y is not methoxy when at least one of R⁶, R⁷, R⁸ and R⁹ is a substituent other than hydrogen, and excluding a compound of the formula (I):



wherein R^{1'} is hydrogen or hydroxy and R^{13'} is hydroxy or methoxy; or a pharmaceutically acceptable salt or hydrate thereof.

46. (Currently Amended) A compound of the formula (I):



wherein R¹ is hydrogen, hydroxy, halogen, optionally substituted lower alkoxy, optionally substituted alkenyloxy, optionally substituted lower alkylsulfonyloxy, optionally substituted amino or optionally substituted sulfamoyl,

R² is hydrogen, halogen or lower alkyl having 1 to 3 carbon atoms,

R³ is hydrogen or halogen,

R⁴ is hydrogen, lower alkyl, lower alkoxy or halogen,

R⁵ is hydrogen, lower alkoxycarbonyl or carboxy,

R⁶ is hydrogen, lower alkyl or halogen,

R⁷ is hydrogen, lower alkyl or lower alkoxy,

R⁸ is hydrogen, lower alkyl or lower alkoxy,

R⁹ is hydrogen, hydroxy, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, optionally substituted carbamoyl or optionally substituted amino,

R¹⁰ is hydrogen,

R¹¹ is hydrogen or halogen,

R¹² is hydrogen,

R¹³ is hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted acyloxy, optionally substituted lower alkylsulfonyloxy, formyl or optionally substituted amino,

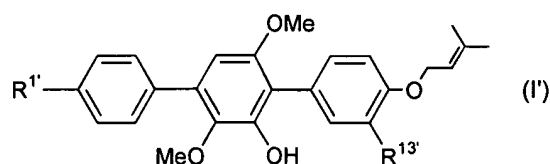
X is -O-, -NH-, -NMe- or -SO₂-,

Y is lower alkyl optionally substituted with aryl; or lower alkenyl,

and R¹ and R⁴ or R⁸ and R⁹ taken together may form a 5- or 6-membered ring which contains one or more of O,

excluding compounds wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen and compounds wherein all of R²-R¹³ are hydrogen, provided that R¹ is not hydrogen, fluorine or optionally substituted lower alkoxy, all of R², R³, R⁴, R⁵ and R¹² are hydrogen, or R¹³ is not hydrogen or halogen when R⁶, R⁷, R⁸ and R⁹ are all simultaneously hydrogen, and further

provided that R^{13} is not hydrogen or -X-Y is not methoxy when at least one of R^6 , R^7 , R^8 and R^9 is a substituent other than hydrogen, and excluding a compound of the formula (I'):

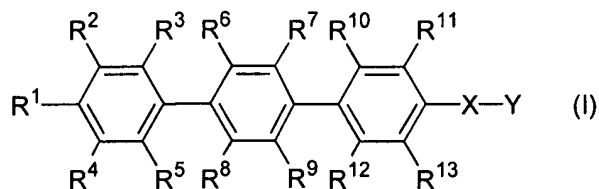


wherein $R^{1'}$ is hydrogen or hydroxy and $R^{13'}$ is hydroxy or methoxy; or a pharmaceutically acceptable salt or hydrate thereof.

47. (Currently Amended) The compound, ~~pharmaceutically acceptable salt or hydrate or~~ pharmaceutically acceptable salt thereof claimed in claim 46, wherein Y is methylbutenyl.

48. (Currently Amended) The compound, ~~pharmaceutically acceptable salt or hydrate or~~ pharmaceutically acceptable salt thereof claimed in claim 46, wherein -X-Y is -OCH₂CH=CMe₂, or -OCH₂C₆H₅.

49. (Currently Amended) A compound of the formula (I):

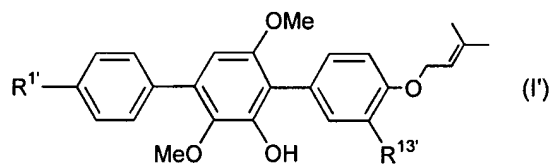


wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} and R^{13} are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, cyano, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is -O-, -CH₂-, -NR¹⁴- wherein R^{14} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)_p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may be optionally substituted lower alkoxy when X is -CH₂- and may be optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-, R^1 and R^4 , R^1 and R^2 , R^2 and R^3 , R^4 and R^5 , R^6 and R^7 , R^8 and R^9 , R^{10} and R^{11} , R^{12} and R^{13} , R^{11} and -X-Y, or R^{13} and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R^{15} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted arylsulfonyl and which may optionally be substituted, excluding compounds wherein one or more of R^6 , R^7 , R^8 and R^9 are halogen and the others are hydrogen,

compounds wherein all of R^6 , R^7 , R^8 and R^9 are halogen and compounds wherein all of R^2 - R^{13} are hydrogen, halogen or cyano, provided that R^1 is not hydrogen, fluorine, optionally substituted lower alkyl or optionally substituted lower alkoxy, all of R^2 , R^3 , R^4 , R^5 and R^{12} are hydrogen, and R^{13} is not hydrogen or halogen when R^6 , R^7 , R^8 and R^9 are all simultaneously hydrogen, and further provided that R^1 is not methyl or acetyloxy, R^{13} is not hydrogen, optionally substituted lower alkoxycarbonyl or optionally substituted carbamoyl, and -X-Y is not methoxy when at least one of R^6 , R^7 , R^8 and R^9 is a substituent other than hydrogen, and excluding a compound of the formula (I'):



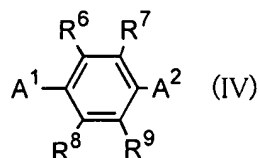
wherein R^1 is hydrogen or hydroxy and $R^{13'}$ is hydroxy or methoxy; or a pharmaceutically acceptable salt ~~or hydrate~~ thereof.

50-51. (Canceled)

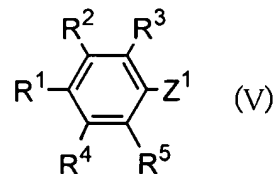
52. (Currently Amended) A pharmaceutical composition comprising the compound, ~~the pharmaceutically acceptable salt, or hydrate~~ or the pharmaceutically acceptable salt thereof according to claim 45, 46, 47, 48 or 49, and a pharmaceutically acceptable excipient.

53. (Currently Amended) A process for producing the compound of the formula (I) according to claim 45, 46, 47, 48 or 49, or the pharmaceutically acceptable salt ~~or hydrate~~ thereof, said process comprising:

reacting a compound of the formula (IV)



with a compound of the formula (V):



wherein, in the formulas (IV) and (V),

R¹ is hydrogen, halogen, optionally substituted lower alkenyloxy, optionally substituted lower alkylsulfonyloxy, optionally substituted amino or optionally substituted sulfamoyl,

R² is hydrogen, halogen or lower alkyl having 1 to 3 carbon atoms,

R³ is hydrogen or halogen,

R⁴ is hydrogen, lower alkyl, lower alkoxy or halogen,

R⁵ is hydrogen, lower alkoxycarbonyl or carboxy,

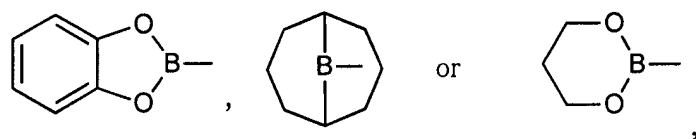
R⁶ is hydrogen, lower alkyl or halogen,

R^7 is hydrogen, lower alkyl or lower alkoxy,

R^8 is hydrogen, lower alkyl or lower alkoxy,

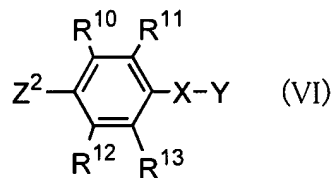
R^9 is hydrogen, hydroxy, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, optionally substituted carbamoyl or optionally substituted amino,

Z^1 , A^1 and A^2 are each independently dihydroxyborane, di(lower)alkoxyborane, di(lower)alkylborane,



and the other is halogen or $-\text{OSO}_2(\text{C}_q\text{F}_{2q+1})-$ wherein q is an integer of 1 to 4, and the reactivity of A^1 is higher than or equal to that of A^2 ,

followed by the reaction with a compound of the formula (VI):



wherein R^{10} is hydrogen,

R^{11} is hydrogen or halogen,

R^{12} is hydrogen,

R^{13} is hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted acyloxy, optionally substituted lower alkylsulfonyloxy, formyl or optionally substituted amino,

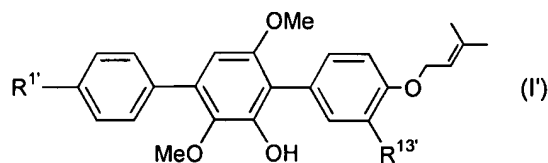
X is -O-, -NH-, -NMe- or -SO₂-,

Y is lower alkyl optionally substituted with lower alkoxy, carbonyl, aryl, lower alkylaryl, halogenoaryl, lower alkoxyaryl, heterocyclyl or acyl; or lower alkenyl optionally substituted with hydroxy, halogen or aryl,

and excluding compounds wherein one or more of R^6 , R^7 , R^8 and R^9 are halogen and the others are hydrogen and compounds wherein all of R^2 - R^{13} are hydrogen,

provided that R^1 is not hydrogen or fluorine, all of R^2 , R^3 , R^4 , R^5 and R^{12} are hydrogen, or R^{13} is not hydrogen or halogen when R^6 , R^7 , R^8 and R^9 are simultaneously hydrogen,

and further provided that R^{13} is not hydrogen or -X-Y is not methoxy when at least one of R^6 , R^7 , R^8 and R^9 is a substituent other than hydrogen, and excluding a product compound of the formula (I'):

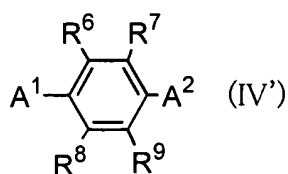


wherein $R^{1'}$ is hydrogen or hydroxy and $R^{13'}$ is hydroxy or methoxy,

pharmaceutically acceptable salt, ~~or hydrate~~ thereof.

54. (Currently Amended) A process for producing the compound of the formula (I), according to claim 45, 46, 47, 48 or 49, or the pharmaceutically acceptable salt ~~or hydrate~~ thereof, said process comprising:

reacting a compound of the formula (IV')



wherein

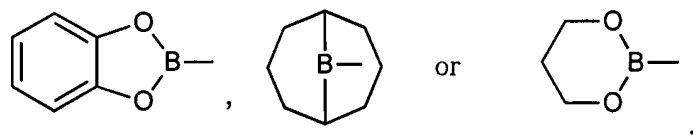
R⁶ is hydrogen, lower alkyl or halogen,

R⁷ is hydrogen, lower alkyl or lower alkoxy,

R⁸ is hydrogen, lower alkyl or lower alkoxy,

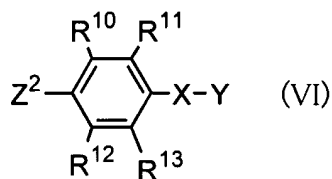
R⁹ is hydrogen, hydroxy, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyloxy, formyl, optionally substituted carbamoyl or optionally substituted amino,

wherein A¹ and A² are each independently dihydroxyborane, di(lower)alkoxyborane, di(lower)alkylborane,



and the other is halogen or $-\text{OSO}_2(\text{C}_q\text{F}_{2q+1})-$ wherein q is an integer of 1 to 4, and the reactivity of A^1 is higher than or equal to that of A^2 , and the reactivity of A^1 is higher than or equal to that of A^2 ,

with a compound of the formula (VI)

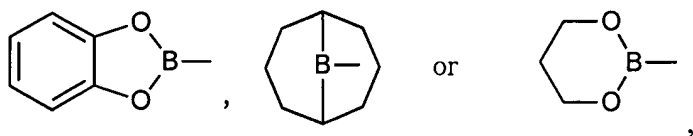


wherein $\text{R}^{10}-\text{R}^{13}$ are as defined for R^6-R^9 above,

X is $-\text{O}-$, $-\text{NH}-$, $-\text{NMe}-$ or $-\text{SO}_2-$,

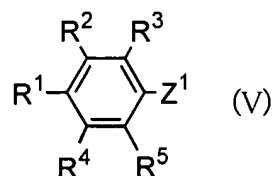
Y is lower alkyl optionally substituted with lower alkoxy, carbonyl, aryl, lower alkylaryl, halogenoaryl, lower alkoxyaryl, heterocyclyl or acyl; or lower alkenyl optionally substituted with hydroxy, halogen or aryl,

wherein Z^2 is dihydroxyborane, di(lower)alkoxyborane, di(lower)alkylborane,

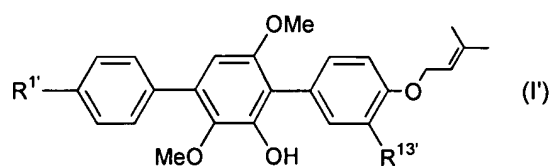


and the other is halogen or $-\text{OSO}_2(\text{C}_q\text{F}_{2q+1})-$ wherein q is an integer of 1 to 4,

followed by the reaction with a compound of the formula (V)

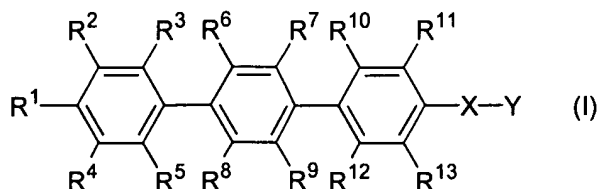


wherein R¹-R⁵ are as defined for R⁶-R⁹ above, Z¹ is defined the same as for Z² above, and excluding compounds wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen and compounds wherein all of R²-R¹³ are hydrogen, provided that R¹ is not hydrogen or fluorine, all of R², R³, R⁴, R⁵ and R¹² are hydrogen, or R¹³ is not hydrogen or halogen when R⁶, R⁷, R⁸ and R⁹ are an simultaneously hydrogen, and further provided that R¹³ is not hydrogen or -X-Y is not methoxy when at least one of R⁶, R⁷, R⁸ and R⁹ is a substituent other than hydrogen, and excluding a product compound of the formula (I'):



wherein R^{1'} is hydrogen or hydroxy and R^{13'} is hydroxy or methoxy, pharmaceutically acceptable salt, ~~or hydrate~~ thereof.

55. (Currently Amended) A compound of the formula (I):



wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} and R^{13} are each independently hydrogen, hydroxy, carboxy, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is -O-, -CH₂-, -NR¹⁴- wherein R^{14} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)_p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is -CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-,

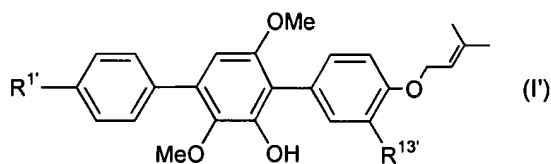
R^1 and R^4 , R^1 and R^2 , R^2 and R^3 , R^4 and R^5 , R^6 and R^7 , R^8 and R^9 , R^{10} and R^{11} , R^{12} and R^{13} , R^{11} and -X-Y, or R^{13} and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR^{15} wherein R^{15} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted arylsulfonyl and which may optionally be substituted,

excluding compounds wherein all of R^2 - R^{13} are hydrogen,

provided that R^1 is not hydrogen or optionally substituted lower alkoxy, all of R^2 , R^3 , R^4 , R^5 and R^{12} are hydrogen, or R^{13} is not hydrogen when R^6 , R^7 , R^8 and R^9 are all simultaneously hydrogen,

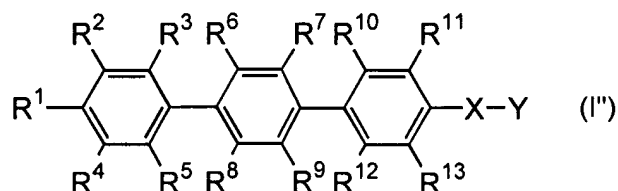
and further provided that R^1 is not acetyloxy, R^{13} is not hydrogen, optionally substituted lower alkoxy, carbonyl or optionally substituted carbamoyl, or -X-Y is not methoxy when at least one of R^6 , R^7 , R^8 and R^9 is a substituent other than hydrogen,

and excluding a compound of the formula (I'):



wherein $R^{1'}$ is hydrogen or hydroxy and $R^{13'}$ is hydroxy or methoxy; or a pharmaceutically acceptable salt or hydrate thereof.

56. (Currently Amended) An immunosuppressive composition comprising a compound of the formula (I''):



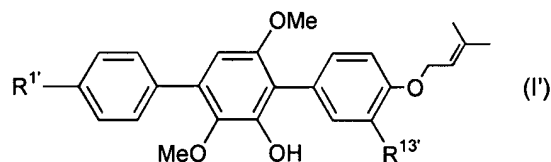
wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} and R^{13} are each independently hydrogen, hydroxy, carboxy, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is -O-, -CH₂-, -NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)_p- wherein p is an integer of 0 to 2,

Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is -CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-,

R^1 and R^4 , R^1 and R^2 , R^2 and R^3 , R^4 and R^5 , R^6 and R^7 , R^8 and R^9 , R^{10} and R^{11} , R^{12} and R^{13} , R^{11} and -X-Y, or R^{13} and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR^{15} wherein R^{15} is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or optionally substituted arylsulfonyl and which may optionally be substituted,

excluding a compound of the formula (I'):



wherein $R^{1'}$ is hydrogen or hydroxy and $R^{13'}$ is hydroxy or methoxy; or a pharmaceutically acceptable salt or hydrate thereof, and

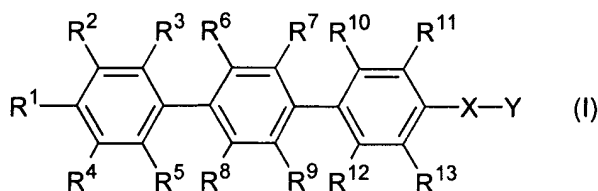
a pharmaceutically acceptable excipient.

57. (Previously Presented) The compound or immunosuppressive composition as claimed in any one of claims 34, 40, 45, 46 and 49, wherein at least two of R^6 , R^7 , R^8 and R^9 , are each independently selected from the group consisting of hydroxy, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxy carbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower

alkylsulfinyl, nitro, cyano, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl and optionally substituted heterocyclyl.

58. (Previously Presented) The compound claimed in claim 57, wherein at least one of R^6 , R^7 , R^8 and R^9 is a hydrogen, optionally substituted lower alkoxy or optionally substituted lower alkyl.

59. (Currently Amended) A compound of the formula (I):



wherein R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} and R^{13} are each independently hydrogen, hydroxy, halogen, carboxy, optionally substituted lower alkyl, optionally substituted lower alkoxy, optionally substituted lower alkenyl, optionally substituted lower alkenyloxy, optionally substituted lower alkylthio, optionally substituted lower alkoxycarbonyl, optionally substituted acyloxy, optionally substituted lower alkylsulfonyl, optionally substituted lower alkylsulfonyloxy, optionally substituted lower alkylsulfinyl, nitro, cyano, formyl, optionally substituted amino, optionally substituted carbamoyl, optionally substituted sulfamoyl or optionally substituted heterocyclyl,

X is -O-, -CH₂-, -NR¹⁴- wherein R¹⁴ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl or acetyl, or -S(O)_p- wherein p is an integer of 0 to 2,

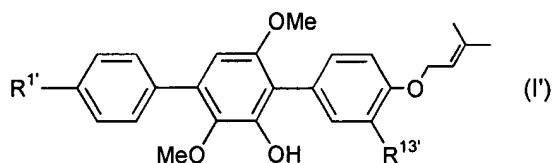
Y is optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted lower alkynyl, optionally substituted acyl, optionally substituted cycloalkyl, optionally substituted cycloalkenyl, optionally substituted aryl or optionally substituted heterocyclyl, and Y may optionally be substituted lower alkoxy when X is -CH₂- and may optionally be substituted lower alkoxycarbonyl, optionally substituted lower alkylsulfonyl or optionally substituted arylsulfonyl when X is -O- or -NR¹⁴-,

R¹ and R⁴, R¹ and R², R² and R³, R⁴ and R⁵, R⁶ and R⁷, R⁸ and R⁹, R¹⁰ and R¹¹, R¹² and R¹³, R¹¹ and -X-Y, or R¹³ and -X-Y taken together may form a 5- or 6-membered ring which may contain one or more of O, S or NR¹⁵ wherein R¹⁵ is hydrogen, optionally substituted lower alkyl, optionally substituted lower alkenyl, optionally substituted arylsulfonyl and which may optionally be substituted,

excluding compounds wherein one or more of R⁶, R⁷, R⁸ and R⁹ are halogen and the others are hydrogen, compounds wherein all of R⁶, R⁷, R⁸ and R⁹ are halogen and compounds wherein all of R²-R¹³ are hydrogen, halogen or cyano,

provided that R¹ is not hydrogen, fluorine, optionally substituted lower alkyl or optionally substituted lower alkoxy, all of R², R³, R⁴, R⁵ and R¹² are hydrogen, or R¹³ is not hydrogen or halogen when R⁶, R⁷, R⁸ and R⁹ are all simultaneously hydrogen,

and further provided that R^1 is not methyl or acetyloxy, R^{13} is not hydrogen, optionally substituted lower alkoxy, carbonyl or optionally substituted carbamoyl, or -X-Y is not methoxy when at least one of R^6 , R^7 , R^8 and R^9 is a substituent other than hydrogen, and excluding a compound of the formula (I'):



wherein $R^{1'}$ is hydrogen or hydroxy and $R^{13'}$ is hydroxy or methoxy; or a pharmaceutically acceptable salt or hydrate thereof.

60. (Previously Presented) A method of suppressing the production of IgE comprising administering to an individual in need thereof an effective amount of the compound of claim 34.

61. (Previously Presented) A method of treating allergies comprising administering to an individual in need thereof an effective amount of the compound of claim 34.

62. (Previously Presented) A method of suppressing the production of IgE comprising administering to an individual in need thereof an effective amount of the compound of claim 35.

63. (Previously Presented) A method of treating allergies comprising administering to an individual in need thereof an effective amount of the compound of claim 35.

64. (Previously Presented) A method of suppressing the production of IgE comprising administering to an individual in need thereof an effective amount of the compound of claim 45.

65. (Previously Presented) A method of treating allergies comprising administering to an individual in need thereof an effective amount of the compound of claim 45.

66. (Previously Presented) A method of suppressing the production of IgE comprising administering to an individual in need thereof an effective amount of the compound of claim 46.

67. (Previously Presented) A method of treating allergies comprising administering to an individual in need thereof an effective amount of the compound of claim 46.

68. (Previously Presented) A method of suppressing the production of IgE comprising administering to an individual in need thereof an effective amount of the compound of claim 47.

69. (Previously Presented) A method of treating allergies comprising administering to an individual in need thereof an effective amount of the compound of claim 47.

70. (Previously Presented) A method of suppressing the production of IgE comprising administering to an individual in need thereof an effective amount of the compound of claim 48.

71. (Previously Presented) A method of treating allergies comprising administering to an individual in need thereof an effective amount of the compound of claim 48.

72. (Previously Presented) A method of suppressing the production of IgE comprising administering to an individual in need thereof an effective amount of the compound of claim 49.

73. (Previously Presented) A method of treating allergies comprising administering to an individual in need thereof an effective amount of the compound of claim 49.

74-83. (Canceled)